

**Errata for DeVeaux, Velleman and Bock, *Stats: Data and Models*, 3<sup>rd</sup> ed**

p. 234, Problem 23 (continued from p. 233): The regression model given is for data since 1980 (not 1950).

p. 691 There is a *mistake* in the “For Example”: The first step (calculation of a 95% confidence interval (0.452, 1.00) for the mean of logDiam when Age is 5 million years) is OK. The problem enters when transforming back units to of kilometers in diameter:

- $10^{\text{mean}(\log\text{Diam}(\text{Age} = 5))}$  is the *median* of  $\text{Diam}(\text{Age} = 5)$ .
- This will *not* in general be the mean of  $\text{Diam}(\text{Age} = 5)$ .
- In fact, if the model fit exactly,  $\log\text{Diam}(\text{Age} = 5)$  would be normal (so  $\text{Diam}(\text{Age} = 5)$  would be called *lognormal*). If the mean and standard deviation of  $\log\text{Diam}(\text{Age} = 5)$  are  $\mu$  and  $\sigma$ , respectively, then the mean of  $\text{Diam}(\text{Age} = 5)$  would be  $10^{\mu + \frac{\sigma^2}{2}}$ , which is *larger* than  $10^\mu$ .
- The confidence interval (2.8, 10) obtained is, however, a confidence interval for the *median* of  $\text{Diam}(\text{Age} = 5)$ . (Note that it is *not* symmetric about the estimated median  $10^{0.726} = 5.32$ .)

p. 702, Exercise 4: Typo on 4<sup>th</sup> line – units for size should be 1000 ft<sup>2</sup> (not \$1000's ft<sup>2</sup>)